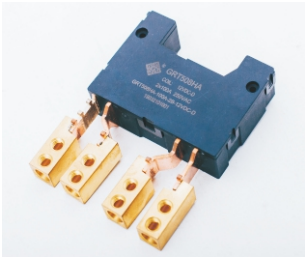


Character

- ◇ 100A two sets of contacts switching capability
- ◇ Only impulse excitation needed, both for single and double coil.
- ◇ Low power consumption, small in size
- ◇ Custom assemblies available with flexible wire and/or copper straps,and/or with integrated shunt
- ◇ 4KV dielectric strength between coil and contacts
- ◇ RoHS compliant
- ◇ IEC62055–31 UC3 compliant
- ◇ Outline dimensions: (70 x 52 x 22) mm

Contact Data

Contact Form		2B
Contact Material		$AgSnO_2$
Contact Resistance		Max.1.0mΩ (1A 6VDC)
Rated Load(Resistive)		100A 250VAC
Max.Switching Voltage		250VAC
Max.Switching Current		100A
Max.Switching Power		25000VA
Service Life	Mechnical Endurance	1×10^5OPS
	Electrical Endurance	6×10^3OPS (100A 250VAC)
		1×10^4OPS (80A 250VAC)
Max.Short-circuit Current		3000A/10ms
		6000A/10ms(no explosion)

Characteristics

Operate Time		40ms Max.
Release Time		40ms Max.
Insulation Resistance (500VDC)		1000MΩ Min.
Dielectric Strength (50/60hz, 1min)	Contact to Coil	4000VAC
	Across Open Contacts	2000VAC
	Contact to contact	4000VAC
Surge Voltage (1.2/50 μ s)	Contact to Coil	6KV
Creepage Distance		8mm
Unit Weight		About 170g

Environmental Data

Ambient Temperature	–40℃ ~ +85℃	Relative Humidity		5%-85% RH
Vibration	10-55Hz 1.5mm	Shock	Functional	98m/s²
			Survival	980m/s²

Coil Data (20℃)

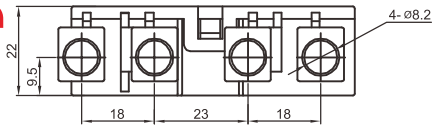
Coil Voltage (VDC)	Coil Resistance(Ω)±10%		Coil Power(w)		Operating Voltage (VDC)	Releasing Voltage (VDC)	Allowing voltage (VDC)	Pulse Duration (ms)
	Single	Double	Single	Double				
□ 9	20.3	10.1/10.1	4.0	8.0	≤6.3	≤6.3	13.5	≥100
□ 12	36	18/18			≤8.4	≤8.4	18	
□ 24	144	72/72			≤16.8	≤16.8	36	
□ 48	576	288/288			≤33.6	≤33.6	72	

Ordering information

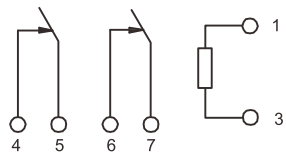
GRT508HA | 100A | 2B | 12VDC | S | XX

Terminal type:	Custom design
Coil type:	S:single coil D:double coil
Coil voltage:	5, 6, 9, 12, 24, 48V
Contact form:	2B:two sets of contacts remain closed
Contact current:	100A
Relay Series:	GRT508HA

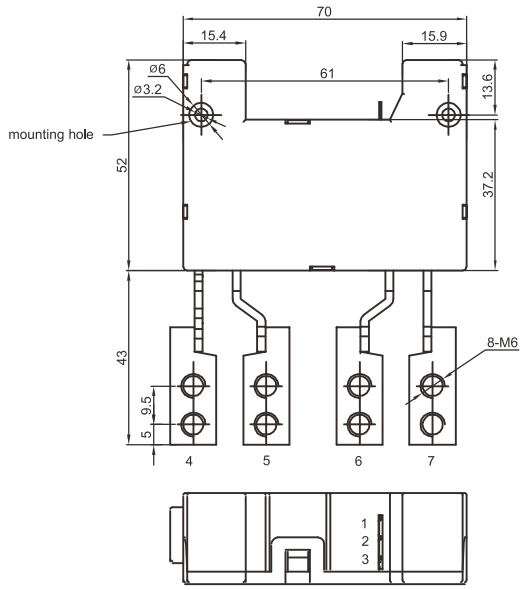
Dimensional Drawings/Wiring Diagrams(unit:mm)



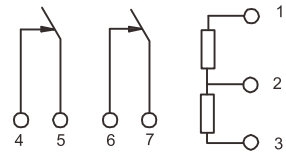
Single coil



1 (+) 3 (-) 4-5、6-7 Release(Open)
3 (+) 1 (-) 4-5、6-7 Operate(Close)



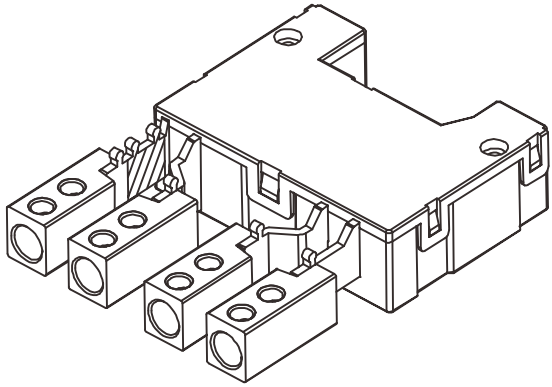
Double coil

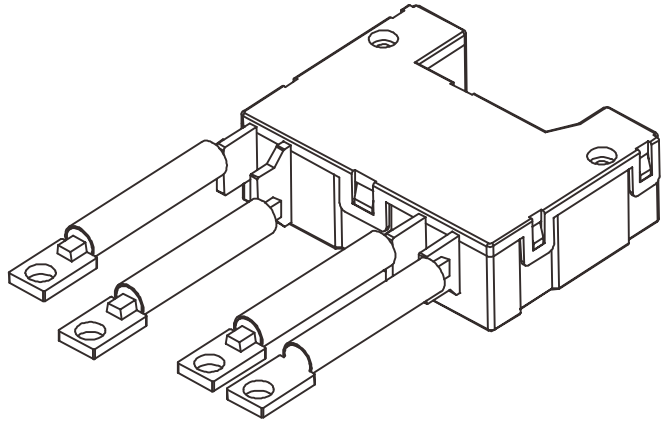


1 (+) 2 (-) 4-5、6-7 Release(Open)
3 (+) 2 (-) 4-5、6-7 Operate(Close)

Note: No tolerance marked. If dimension ≤1mm, the tolerance is ±0.2mm; if dimension 1-5mm, the tolerance is ±0.3mm; if dimension ≥5mm, the tolerance is ±0.5mm.

Typical Terminal Type





Typical application

●Smart Meter ●Electric Remote Control ●Electrical Leakage Protector

Notes:

1.The factory defaults of relay contacts is set to be closed (reset state), however, due to the transportation or installation, contacts may be impacted, and change its state, so it is necessary to take action to reset before usage (access to power)

2.To be sure latching relay operating reliably, the excitation voltage to coil is to be attained rating, the setting of pulse width should be more than rating, long time (more than 1 min) applied voltage to coil is not acceptable

3.PCB type latching relay, suggested welding temperature is 240℃-260℃, time is 2S-5S. Please do not adopt reflow soldering. Normally, the temperature for wave soldering is required 250℃ and time is ≤2S.

4.Latching relay which is without copper braided wires, the load leading pin can neither be tin soldered nor be wrenched. Don't do any extra force to load

5.When screws or bolt is used for load leading terminal of latching relay, please be sure to connect tightly, in case of any damage or the other safety accident causing by over temperature rise.

6.Due to limited signal wire strength of coil or shunts, do not twist or pull the signal wire, it is easy to get it broken.

7.Please handle gently when doing coming inspection and usage, preventing falling to impact the parameters. Distinguish the product which needs destructive inspection with normal products when entering to the factory, forbidding using it.

Statement:

Product specification brochure is for reference only. GRT can't ensure relays meet all performance parameters in each specific application field.

Customers should choose the right products as per according to specific using conditions.

Compile date:July 30, 2021